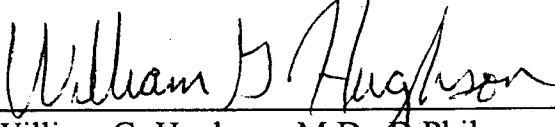


AMA Guides to the Evaluation of Permanent Impairment (4th Ed. 1998) are authoritative standards for determining whether an individual's pulmonary function test results show actual impairment.

17. Dr. Hughson may testify about the opinions of Dr. Henry A. Anderson, especially as reflected in Dr. Anderson's expert report in this case. Dr. Hughson may also testify concerning the published and unpublished sources cited in Dr. Anderson's report, including among others an unpublished letter from Dr. Alan C. Whitehouse to the President Elect of the American Bar Association that is cited in Dr. Anderson's report.

18. Dr. Hughson's compensation rate for this work and testimony is \$500 per hour.

 4-9-03

William G. Hughson, M.D., D.Phil.

C U R R I C U L U M V I T A E

HUGHSON, WILLIAM G.

Date of Birth: January 7, 1951
Place of Birth: Calgary, Alberta, Canada
Marital Status: Married - Joanne Lloyd Hughson

EDUCATION

- 1968: Graduated from secondary education with a first-class diploma.
- 1968-70: Enrolled in the Faculty of Arts and Science of the University of Calgary in pre-medical studies. Academic record of 4.0 grade-point average.
- 1970: Entered the Faculty of Medicine of the University of Calgary. Graduated 1973.

POST GRADUATE TRAINING

Straight Intern (Medicine) at the Royal Victoria Hospital, Montreal.	July 1973-June 1974
Resident in Obstetrics and Gynecology at the Foothills Hospital, Calgary.	July 1974-Oct. 1974
Department of Social and Community Medicine, Oxford University. Completed a Doctor of Philosophy degree. Title of thesis "A study of Some Aspects of the Epidemiology and Treatment of Peripheral Vascular Disease".	Oct. 1974-Sept. 1977
Resident III in Medicine at the Royal Victoria Hospital, Montreal.	Oct. 1977-June 1978

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Resident IV in Medicine at the Royal
Victoria Hospital, Montreal.

July 1978-June 1979

First-year Fellow in the Division of
Pulmonary Medicine and Critical Care
Medicine. University of California,
San Diego.

July 1979-June 1980

Second-year Fellow in the Division of
Pulmonary Medicine and Critical Care
Medicine. University of California,
San Diego.

July 1980-June 1981

Third-year Fellow in the Division of
Pulmonary Medicine and Critical Care
Medicine. University of California,
San Diego.

July 1981-June 1982

BOARD CERTIFICATIONS AND QUALIFICATIONS

Board Certified, American College of
Physicians. Specialty in Internal
Medicine.

1979

Fellow, Royal College of Physicians
and Surgeons of Canada. Specialty
in Internal Medicine.

1979

Board Certified, American College of
Physicians. Specialty in Pulmonary
Medicine.

1982

Certified NIOSH "A" Reader.

1982

Board Certified, American Board of
Preventive Medicine. Specialty in
Occupational Medicine.

1987

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APPOINTMENTS

Assistant Clinical Professor of Medicine. University of California, San Diego.	July 1982-June 1990
Director, UCSD Center for Occupational & Environmental Medicine.	January 1984-present
Independent Medical Examiner for the Division of Industrial Accidents for the State of California.	January 1984-1995
Medical Director, UCSD Employee Health Program.	September 1985-present
Lecturer, Graduate School of Public Health, San Diego State University. Teaching PH 635, Occupational Medicine.	1987 & 1988
Associate Clinical Professor of Medicine. University of California, San Diego.	July 1990-June 1996
Associate Adjunct Professor, Division of Occupational and Environmental Health, Graduate School of Public Health, San Diego State University.	August 1991-present
Qualified Medical Evaluator, State of California.	1995-1998
Clinical Professor of Medicine. University of California, San Diego.	July 1996-present
Adjunct Professor, Division of Occupational and Environmental Health, Graduate School of Public Health, San Diego State University.	August 2000-present

ACADEMIC AWARDS

University Honor Prize	1969
Viscount Bennett Scholarship	1969
Imperial Oil Scholarship (full tuition)	1969-1972

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Teagle Foundation Scholarship
Rhodes Scholarship for Alberta

1969-1973
1974

PROFESSIONAL ORGANIZATIONS

American Association of Rhodes Scholars
American College of Occupational and Environmental Medicine
American College of Chest Physicians
American College of Physicians
American Thoracic Society
California Thoracic Society
Canadian Association of Rhodes Scholars
Royal College of Physicians & Surgeons of Canada
Western Occupational and Environmental Medical Association

COMMITTEES

Member, Occupational Medicine Scientific Committee. California Medical Association.	July 1985-present
Member, Environmental and Occupational Health Committee. American Lung Association of California.	July 1985-present
Member, Executive Committee of the San Diego Pulmonary Society. Society President 1988-1989.	1985-1989
Member, Occupational Health Training Advisory Board. San Diego State University.	1986-present
Member, Committee for Clinical Affairs. UCSD Division of Pulmonary and Critical Care Medicine.	1987-1998
Member, Science Resources Panel. Subcommittee of Quality of Life Board advising the City of San Diego regarding the Sander Trash-to-Energy Project.	February 1987-June 1988
Chairman, UCSD Medical Ethics	July 1988-June 1990

William G. Hughson, M.D.
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Committee.

Member, UCSD Health and Safety Advisory Council. August 1988-present

Member, Preventive Pulmonary Education Committee. July 1989-1998

Member, UCSD Medical Center Safety Management Program Committee. July 1989-present

Member, Subcommittee on Non-Biological Contaminants. Subcommittee of the Toxic Waste Advisory Committee of the Port of San Diego, dealing with pollution problems in San Diego Bay. August 1989-August 1990

Chairman, UCSD Medical Center Bylaws Committee. July 1991-June 1994

Member, UCSD Administrative Services QMP Steering Committee. April 1992-1994

Member, Occupational and Clinical Toxicology Committee, American College of Occupational and Environmental Medicine. April 1993-present

Member, UCSD Department of Medicine Committee on Appointments and Promotions (DOMCAP). April 1997-June 1998

Member, American Lung Association of California Research Program Research Training Fellowship Review Committee. July 1997-present

PUBLICATIONS

1. Hughson WG, Mann JI, Tibbs DJ, Woods HF, Walton I. Intermittent Claudication: Factors Determining Outcome. British Medical Journal 1978;1:1377-1379.
2. Hughson WG, Mann JI, Garrod A. Intermittent Claudication: Prevalence and Risk Factors. British Medical Journal 1978;1:1379-1381.
3. Mann JI, Hughson WG, Holman RR, Honour AJ, Thorogood M, Smith A,

William G. Hughson, M.D.
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- Baum JD. Serum Lipids in Treated Diabetic Children and Their Families. *Clinical Endocrinology* 1978;8:27-33.
4. Hughson WG, Friedman PJ, Feigin DS, Resnik R, Moser KM. Postpartum Pleural Effusion: A Common Radiographic Finding. *Annals of Internal Medicine* 1982;97:856-858.
 5. Guidotti TL, Abraham JL, Hughson WG, Krems AD, Neuman TS, Bryson AL, Heramb BI. Taking the Occupational History. *Annals of Internal Medicine* 1983;99:641-651.
 6. Hughson WG. Pleural Diseases Associated with Asbestos: Medical and Legal Implications. *Pulmonary Perspectives* 1985;2(4):6-8.
 7. Hughson WG. Evaluation of the Solitary Pulmonary Nodule. Computer program presented at the annual California Medical Association Conference, February 1986.
 8. Hughson WG. Occupational Lung Disease. Computer program prepared for Medical Information Diagnostic Systems, Inc., September 1986.
 9. Hughson WG. Pulmonary Function Tests. In LaDou J (ed): Occupational Medicine. Norwalk, Connecticut, Appleton & Lange 1990;221-222.
 10. Hughson WG. Occupational Asthma. In LaDou J (ed): Occupational Medicine. Norwalk, Connecticut, Appleton & Lange 1990;222-227.
 11. Hughson WG. Rehabilitation: Re-entry Into the Workplace After Treatment for Cancer. In Moossa AR, Schimpff SC, Robson MC (eds): Comprehensive Textbook of Oncology. Baltimore, Williams & Wilkins 1991;1820-1823.
 12. Hughson WG. Coal Workers Pneumoconiosis. In Bordow RA, Moser KM (eds): Manual of Problems in Pulmonary Medicine, Third Edition. Boston, Little, Brown & Company 1991;357-360.
 13. Hughson WG. Pulmonary Disability Evaluations. *Pulmonary Perspectives* 1991;8(4):4-6.
 14. Hughson WG. Epidemiologic Considerations in Occupational Asthma. *Immunology and Allergy Clinics of North America* 1992;12:697-710.
 15. Mooney V, Hughson WG. Resurgence of Work-Hardening Programs. *Western Journal of Medicine* 1992;156:410.
 16. Cox CB, Hughson WG. "Making the Connection". Videotape concerning Occupational Asthma produced for Office of Learning Resources - TV

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UCSD, Preventive Pulmonary Series, 1993.

17. Hughson WG. Coal Workers Pneumoconiosis. In Bordow RA, Moser KM (eds): Manual of Problems in Pulmonary Medicine, Fourth Edition. Boston, Little, Brown & Company 1996: 367-370.
18. Hughson WG. Occupational Asthma. In Bordow RA, Moser KM (eds): Manual of Problems in Pulmonary Medicine, Fourth Edition. Boston, Little, Brown & Company 1996: 373-376.
19. Hughson WG. Approaches to Occupational-Environmental Lung Disease. In Bordow RA, Moser KM (eds): Manual of Problems in Pulmonary Medicine, Fourth Edition. Boston, Little, Brown & Company 1996: 361-364.
20. Hughson WG, Fedoruk MJ. Occupational and Environmental Causes of Lung Cancer and Esophageal Cancer. In Aisner J, Arriagada R, Green MR, Martini N, Perry MC (eds): Comprehensive Textbook of Thoracic Oncology. Baltimore, Williams & Wilkins 1996:66-89.
21. Fedoruk MJ, Logan DC, McDiarmid MA, Forrester BG, Hughson WG, Holland C, Newby HE, Saunders JH. American College of Occupational and Environmental Medicine (ACOEM) Reproductive Hazard Management Guidelines. *Journal of Occupational and Environmental Medicine* 1996;38:83-90.
22. Hughson WG. Guest Editorial: The Undercover Advocate. *RT/The Journal for Respiratory Care Practitioners*. April/May 1997:18,117.
23. Hughson WG. Occupational and Environmental Medicine in an Academic Medical Center. *Western Journal of Medicine* 1998 (in press).
24. Hughson WG. Silicosis, Coal Workers' Pneumoconiosis and Byssinosis. In Bowler RM, Cone JE (eds): Occupational Medicine Secrets. Philadelphia, Hanley & Belfus 1999: 101-105.
25. Hughson WG. Approaches to Occupational-Environmental Lung Disease. In Bordow RA, Ries AL, Morris TA (eds): Manual of Problems in Pulmonary Medicine, Fifth Edition. Philadelphia, Lippincott, Williams & Wilkins 2001, 415-418.
26. Hughson WG. Coal Workers' Pneumoconiosis. In Bordow RA, Ries AL, Morris TA (eds): Manual of Problems in Pulmonary Medicine, Fifth Edition. Philadelphia, Lippincott, Williams & Wilkins 2001, 421-424.
27. Hughson WG. Occupational Asthma. In Bordow RA, Ries AL, Morris, TA(eds): Manual of Problems in Pulmonary Medicine, Fifth Edition.

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Lippincott, Williams & Wilkins 2001, 428-431.

28. Hughson WG. Disability and Medicolegal Evaluation. In Bordow RA, Ries AL, Morris TA (eds): Manual of Problems in Pulmonary Medicine, Fifth Edition. Philadelphia, Lippincott, Williams & Wilkins 2001, 431-434.

ABSTRACTS

1. Hughson WG, Lonky SA. The Effect of Exposure to Ozone on the Protease-Antiprotease System of the Dog. American Review of Respiratory Disease 1982;125:148.

WILLIAM G. HUGHSON M.D.: LIST OF CASES WITH DEPOSITION AND/OR TRIAL TESTIMONY FROM 1998 THROUGH APRIL 9, 2003

2003

ALLEN, Geraldine (WD: Leonard) v. Raybestos-Manhattan. San Francisco Superior Court Case No. 311280. Deposition 2-10-03.

BERNARD, Samuel and Sandra v. AcandS. Los Angeles Superior Court Case No. BC 264506. Deposition 2-19-03.

CATANIA, Barbara & Michael v. AcandS. United States District Court Middle District of Louisiana. C.A. No. 02-368-D-M1. Deposition 1-29-03.

CREECH, Roger and Roberta v. AcandS. Superior Court for the State of Washington for the County of King. Case No. 02-2-21034-1SEA.. Deposition 1-13-03.

FORBES, Lewis & Diana v. AcandS. San Francisco Superior Court Case No. 411098. Deposition 1-30-03.

GAITHER, Edna (WD: Robert) v. Raybestos-Manhattan. San Francisco Superior Court Case No. 314282. Deposition 3-26-03.

HANLEY GROUP 34. San Francisco Superior Court. Deposition 2-24-03.

KRIVCHUK, Jeffrey and Stacey v. Atlas Turner. Los Angeles Superior Court Case No. BC 260354. Deposition 1-6-03.

LEE, Roy Duane v. A.P. Green. San Francisco Superior Court Case No. 314384. Deposition 2-21-03.

LITTLE, Eunice (WD: Ronald) v. Asbestos Defendants. San Francisco Superior Court Case No. 321616. Deposition 2-27-03.

MARSHALL, Cecilia (WD: PATRICH, Delores) v. AcandS. Los Angeles Superior Court Case No. BC 248587. Deposition 3-13-03.

MINKLER, Edward L. (WD: Irmgard Minkler) et al. v. Bondex International, et al. Los Angeles, Superior Court Case No. BC 256894. Deposition 2-5-03.

MULLEN, Richard and Sheila v. Asbestos Defendants. San Francisco Superior Court Case No. 408861. Deposition 3-3-03.

NAVARRO, Alfred (WD: Barbara) v. Bondex International, et al. Los Angeles Superior Court Case No. BC 243027. Deposition 1-27-03.

NIEMEIER, Gina and Michael v. AcandS. San Francisco Superior Court Case No. 410294. Deposition 4-7-03.

RAIGOZA, Eugena (WD: Rayinaldo) v. Asbestos Defendants. San Francisco Superior Court Case No. 303643. Deposition 2-27-03.

RICHARDSON, D'Arcy and Carole v. A.W. Chesterton Co. San Francisco Superior Court Case No. 411448. Deposition 2-3-03.

TIMS, Lester & Elsie v. Asbestos Defendants. San Francisco Superior Court Case No. 401308. Deposition 1-2-03.

WELLS, John and Carole v. Asbestos Defendants. San Francisco Superior Court Case No. 316792. Trial testimony 3-19-03.

WHALEY, Betty (WD: Mayo) v. A.P. Green. San Francisco Superior Court Case No. 315953. Deposition 3-14-03.

WHITTLE, Doreen (WD: Ronald) v. Asbestos Defendants. San Francisco Superior Court Case No. 321942. Deposition 2-27-03.

2002

ANDERSON, Douglas v. Atlas Turner. Los Angeles Superior Court Case No. BC 257187. Deposition 10-18-02.

ANDREWS, Charles v. Asbestos Defendants. San Francisco Superior Court Case No. 313714. Deposition 11-1-02.

BAILEY, James and Sandra v. AcandS. Alameda County Superior Court Case No. 2002-040207. Deposition 6-19-02.

BAKER, Judith v. Asbestos Defendants. San Francisco Superior Court Case No. 305194. Deposition 3-13-02.

BARKAT, Sheryle (WD: Rafi) v. Asbestos Defendants. San Francisco Superior Court Case No. 300640. Deposition 3-14-02. Trial testimony 7-17-02.

BATTERMAN, Richard and Leola v. AlliedSignal. San Francisco Superior Court Case No. 402383. Deposition 6-6-02.

BELL, Russell v. A.W. Chesterton, et al. San Francisco Superior Court Case No. 411090. Deposition 12-12-02.

BENNETT, Grant v. ACandS. San Francisco Superior Court Case No. 405006.
Deposition 6-24-02.

BERNING, John and Beradine v. A.P. Green. San Francisco Superior Court Case No.
319733. Deposition 12-5-01. Trial testimony 1-15-02.

BOKMAN, Francis, et al. v. ACandS, et al. Circuit Court for Baltimore City.
Consolidated Case No. 24-X-01000918. Deposition 4-24-02.

BOREM, Gale v. Asbestos Defendants. San Francisco Superior Court Case No. 313707.
Deposition 8-5-02.

BOTTNER, Joel v. AcandS. San Francisco Superior Court Case No. 408280. Deposition
10-28-02.

BRATCHER, Herbert v. Asbestos Defendants. San Francisco Superior Court Case No.
315721. Deposition 8-5-02.

BRAYTON GROUP 206. San Francisco Superior Court. Deposition 1-3-02.

BRAYTON GROUPS 224 and 229. San Francisco Superior Court. Deposition 11-1-02.

BRAYTON GROUP 232. San Francisco Superior Court. Deposition 12-6-02.

BRAUCH, Klaus v. Bondex International, et al., Los Angeles Superior Court Case No.
BC258492. Deposition 4-3-02.

BURNS, Polly and Brad v. Asbestos Defendants. San Francisco Superior Court Case
No. 320774. Deposition 12-19-01. Trial testimony 2-5-02.

CAMPBELL, Patrick v. Abney Mills Corporation, et al. King County Superior Court
Case No. 00-2-11084-7SEA. Deposition 10-4-02. Trial testimony 10-23-02.

COX, Donald v. ACandS. San Francisco Superior Court Case No. 313914. Deposition 7-
10-02.

DERY, Robert and Carole v. Raybestos-Manhattan. San Francisco Superior Court Case
No. 315426. Deposition 6-6-02.

DOLL, Wilbert & Yolande v. A.P. Green, et al. San Francisco Superior Court Case No.
315995. Deposition 4-25-02.

FARRELL, Donald (WD: Michael) v. A.P. Green. San Francisco Superior Court Case
No. 305420. Deposition 5-10-02.

FERGUSON, Thomas, et al. v. ACandS. Orange County Superior Court Case No. 00CC10003.
Deposition 7-3-02, trial testimony 9-4-02.

FOUX, John and Mary v. Asbestos Defendants. San Francisco Superior Court Case No. 322267. Deposition 2-8-02.

FREDERICK, Charles v. Asbestos Defendants. San Francisco Superior Court Case No. 401769. Deposition 10-10-02.

FURNESS, Charles v. A.W. Chesterton, et al. San Francisco Superior Court Case No. 409137. Deposition 12-12-02.

GARDNER, Gerald and Sandra v. AcandS. San Francisco Superior Court Case No. 406413. Deposition 10-30-02.

GOOKSTETTER, Jay v. Asbestos Defendants. San Francisco Superior Court Case No. 402713. Deposition 8-5-02.

GRAHAM, Fred & Myra v. Raybestos-Manhattan. San Francisco Superior Court Case No. 321955. Deposition 2-1-02.

GREEN, Raymond & Barbara v. AP Green, et al. San Francisco Superior Court Case No. 306545. Deposition 4-25-02.

GUNDERSON, Genevieve v. A.P. Green Industries. San Francisco Superior Court Case No. 406207. Deposition 10-21-02. Trial testimony 12-4-02.

HAZEN, Sandra (WD: Thomas) v. ACandS. Los Angeles Superior Court Case No. BC 233617.
Deposition 1-31-02.

HOUX, Alice (WD: Merle) v. Raybestos-Manhattan, et al. San Francisco Superior Court Case No. 999286. Deposition 8-12-02.

JOHNSON, Ted v. Asbestos Defendants. San Francisco Superior Court Case No. 315723. Deposition 8-30-02.

JONES, Wayne v. A.P. Green, et al. San Francisco Superior Court Case No. 318617. Deposition 8-13-02 and 8-28-02.

KUHL, Barbara v. A.P. Green, et al. San Francisco Superior Court Case No. 403450. Deposition 9-20-02.

LAWSON, Otis v. Asbestos Defendants. San Francisco Superior Court Case No. 320544. Deposition 10-10-02.

MacDONALD, Susan and Geri v. Bondex International, et al. Los Angeles Superior Court Case No. BC 265537. Deposition 7-11-02.

MARSHALL, Robert & Martha. Alameda County Superior Court Case No. 2002-037221. Deposition 7-8-02.

MATTESON, John. Supreme Court of New York State. Case No. 01/1105240. Trial testimony 5-13-02 and 5-14-02.

McCARTHY, Douglas and Diana v. AcandS. Los Angeles Superior Court Case No. BC 252223. Deposition 6-10-02.

McQUILLIN, Ruth B., et al. v. A.P. Green Industries, et al. San Francisco Superior Court Case No. 308735. Deposition 7-29-02.

MENARD, George v. Asbestos Defendants. San Francisco Superior Court Case No. 322476. Deposition 8-5-02.

MUELLER, Forrest and Jody v. The Dow Chemical Company. Los Angeles Superior Court Case No. BC 259907. Deposition 12-23-02.

MUNDT, Eileen (WD: Donald) v. A.P. Green Industries, et al. San Francisco Superior Court Case No. 304678. Deposition 9-9-02.

NAUGHTIN, Howard v. Certain-Teed Corp. Los Angeles Superior Court Case No. BC 250026. Deposition 4-22-02. Trial testimony 10-31-02.

NELSON, Kevin and Debra v. Asbestos Defendants. San Francisco Superior Court Case No. 312252. Deposition 8-30-02.

NICHOLS, DeEtta v. A.P. Green Industries. San Francisco Superior Court Case No. 402056.

OTTEN, Boudewyn & Elizabeth v. A.P. Greetn, et al. San Francisco Superior Court Case No. 401739. Deposition 4-11-02.

PAUL, Charles (WD: James F. Hunter) v. A.P. Green Industries, Inc., et al. San Francisco Superior Court Case No. 305370. Deposition 9-9-02.

PETERSON, Karen & Jeffrey v. AcandS, et al. . Alameda Ccounty Superior Court Case No. 2001-031817. Deposition 4-15-02 and 5-5-02. Trial testimony 5-23-02.

PIPICH, Thomas v. Bondex International. Los Angeles Superior Court Case No. BC 267147. Deposition 11-11-02.

PLITZ, Ronald and Zandra v. Raybestos-Manhattan. San Francisco Superior Court Case No. 322574. Deposition 10-28-02.

PURCELL, John and Nancy v. Asbestos Defendants. San Francisco Superior Court Case No. 323892. Deposition 7-26-02.

RANEY, Glenn Ulysses v. A.P. Green, et al. San Francisco Superior Court Case No. 404805. Deposition 8-12-02.

RICHARDSON, Kirk and Candy v. AcandS. Los Angeles Superior Court Case No. BC 259075. Deposition 10-17-02.

ROBINSON, Jackie E. v. A.P. Green Industries. San Francisco Superior Court Case No. 400705. Deposition 5-28-02.

RODRIGUEZ, Enrique & Sixta v. A.P. Green. San Francisco Superior Court Cast No. 401889. Deposition 7-10-02.

RUGANI, Robert and Lois v. AcandS, et al. San Francisco Superior Court Case No. 302355.
Deposition 3-28-02.

SCHRECK, Inge and Sebastian v. Asbestos Defendants. San Francisco Superior Court Case No. 411418. Deposition 11-1-02.

SCOTT, Matthew v. AcandS. Alameda County Superior Court Case No. 2001-032665. Deposition 11-20-02.

SHEEHY, Gerald and Nancy v. AcandS. Los Angeles Superior Court Case No. BC 220887. Deposition 10-17-02.

SOARES, Renee (WD: Edward) v. Asbestos Defendants. San Francisco Superior Court Case No. 996843. Deposition 2-3-98. Trial testimony 1-24-02.

TRINCHESE, Vicotr and Francesca v. A.P. Green Industries. San Francisco Superior Court Case No. 400787. Deposition 6-6-02.

TODAK, Alfred and Stephanie. San Francisco Superior Court Case No. 320621. Deposition 1-3-02.

TOLBERTSON, Marlowe v. A.P. Green Industries. San Francisco Superior Court Case No. 314876. Deposition 2-28-02.

UNITED STATES OF AMERICA v. W.R. Grace Company. United States District Court for the District of Montana, Missoula Division. Civ. No. 01-72-M-DWM. Deposition 9-18-02.

2001

BERNING, John & Bernadine v. AlliedSignal. San Francisco Superior Court Case No. 319733. Deposition 12-5-01.

BOOK, Wendy v. Asbestos Defendants. San Francisco Superior Court Case No. 999220. Deposition 9-17-01.

BRAYTON GROUP 196. San Francisco Superior Court. Deposition 8-20-01.

BRAYTON GROUP 198. San Francisco Superior Court. Deposition 11-2-01.

BRAYTON GROUP 203. San Francisco Superior Court. Deposition 12-19-01.

CALTON, Richard v. Asbestos Defendants. San Francisco Superior Court Case No. 999958. Deposition 9-17-01 and 9-27-01.

CLINTON, Richard & Sylvia v. Raybestos-Manhattan. San Francisco Superior Court Case No. 321730. Deposition 11-30-01.

COLWELL, Perry and Theresa. San Francisco Superior Court Case No. 304104. Deposition 10-15-01.

COSSMAN, Bette & Max V. Raybestos-Manhattan. San Francisco Superior Court Case No. 311804. Deposition 1-24-01.

DRESSLER, Donald v. Anchor Packing. San Francisco Superior Court Case No. 991836. Deposition 11-17-98. Trial testimony 11-7-01 and 11-8-01.

EDWARDS, Gerald Gene, Sr. v. GENERAL MOTORS CORP. San Francisco Superior Court Case No. 316196. Deposition 3-16-01.

ERNST, Ira. San Francisco Superior Court Case No. 314812. Deposition 7-17-01.

FREEMAN, Howard. San Francisco Superior Court Case No. 316687. Deposition 8-2-01.

GERKE, Judith v. AcandS, et al. Alameda County Superior Court Case No. 837457-8. Deposition 10-4-01.

GISHIZSKY, Lev & Irini v. Raybestos-Manhattan. San Francisco Superior Court Case No. 315028. Deposition 3-7-01.

GRABINSKY, Doug v. Asbestos Defendants. San Francisco Superior Court Case No. 988688. Deposition 11-26-01.

GRAHN, Donna (WD: Robert) v. Abex. San Francisco Superior Court. Case No. 922682. Deposition 7-27-00. Trial testimony 7-10-01.

HANSEN, Donna & Russell v. Raybestos-Manhattan. San Francisco Superior Court Case No. 321639. Deposition 12-20-01.

HENDERSON, Don & Marlene. Alameda County Superior Court Case Number 843027-6. Depositions 11-14-01 and 12-6-01. Trial testimony 12-11-01.

HORTON, Wallace Edward, et al. v. AlliedSignal, et al. In the Court of Common Please of Cuyahoga County Ohio. Case No. 391791. Deposition 2-20-01.

JOHNSON, Annie v. Asbestos Defendants. San Francisco Superior Court Case No. 306874. Deposition 11-26-01.

LAMBERTSON, Stephanie (WD: Dale) v. Raybestos-Manhattan. Alameda Superior Court Case No. 745097-0. Deposition 2-7-01.

LANE, Calvin v. Owens-Corning Fiberglas, et al. Los Angeles Superior Court Case No. BC 224881. Deposition 5-17-01. Trial testimony 6-25-01.

LEE, Roy Duane v. A.P. Green. San Francisco Superior Court Case No. 314384. Deposition 1-30-01.

MARK, Clyde v. Gasket Holdings, Inc. Los Angeles Superior Court Case No. BC 220192. Deposition 3-28-01. Trial testimony 8-1-01.

MARSH, Gary P. v. Letner Roofing, Inc., et al. Riverside Superior Court Case No. 334057. Deposition 2-19-01.

MINTZ, Adam v. ACandS. Los Angeles Superior Court Case No. BC 229204. Deposition 1-8-01.

MEJIA, Miguel v. State of California. Superior Court for the State of California for the County of San Luis Obispo. Case No. CV990515. Deposition 7-25-01.

NATIVIDAD, Graciela and Carlos v. Hermes Abrasives, et al. Los Angeles Superior Court - Southeast Division. Case No. VC 029287. Deposition 2-10-01.

NOVO, Gabriel v. AcandS. In the Circuit Court for Baltimore City. Case No. X00000003. Deposition 8-15-01.

ODLE, Dwight. San Francisco Superior Court Case No. 317966. Deposition 6-28-01. Trial testimony 7-5-01.

OVERLY, Louise (WD: Robert) v. Raybestos-Manhattan. San Francisco Superior Court Case No. 977927. Deposition 12-28-00. Trial testimony 1-10-01

POLLINGTON, William v. Asbestos Defendants. San Francisco Superior Court Case No. 315931. Deposition 2-23-01.

PRIOR, M. Renee v. Raybestos-Manhattan. San Francisco Superior Court Case No. 313504. Deposition 1-24-01. Trial testimony 2-28-01.

REYES, Mario v. Raybestos-Manhattan. San Francisco Superior Court Case No. 313506. Deposition 1-24-01 and 1-29-01. Trial testimony 2-13-01.

RICCI, Michael. San Francisco Superior Court Case No. 310389. Deposition 10-19-01.

ROBERTSON, Fred v. Asbestos Defendants. San Francisco Superior Court Case No. 304714. Deposition 1-12-01.

SCHINGLE, Walter G. v. A.P. Green Industries, et al. San Francisco Superior Court Case No. 318455. Deposition 7-20-01. Trial testimony 9-12-01.

SEILER, Linda and James Jr. Alameda County Superior Court Case No. 836448-1. Deposition 7-11-01.

VASEN, Alan v. Asbestos Defendants. San Francisco Superior Court Case No. 312211. Deposition 1-12-01.

WATKINS, Hugh v. Raybestos-Manhattan. San Francisco Superior Court Case Nos. 316527 and 316528. Deposition 3-9-01.

WILMOT, Thomas v. Raybestos-Manhattan. San Francisco Superior Court Case No. 316112. Deposition 3-8-01. Trial testimony 3-13-01.

YEAGER, Richard & Shirley v. Asbestos Defendants. San Francisco Superior Court Case No. 312960. Deposition 4-3-01. Trial testimony 4-26-01.

2000

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Headquarters Press Release

Washington, DC

For 05/21/2003

Release

NATIONAL CONSUMER AWARENESS CAMPAIGN LAUNCHED ON VERMICULITE INSULATION USED IN SOME HOME ATTICS

Environmental News

FOR RELEASE: WEDNESDAY, MAY 21, 2003

NATIONAL CONSUMER AWARENESS CAMPAIGN LAUNCHED ON VERMICULITE INSULATION USED IN SOME HOME ATTICS

CONTACT: David Deegan 202-564-7839

The federal government today launched a national consumer awareness campaign to provide homeowners with important information on vermiculite attic insulation which may contain asbestos. This new campaign, coordinated by EPA and the Agency for Toxic Substances and Disease Registry (ATSDR), instructs homeowners on how to identify vermiculite attic insulation and recommends that people make every effort to not disturb it. Since some vermiculite attic insulation can contain very low levels of microscopic asbestos fibers, it is important that consumers are aware of the precautions they can take to protect against disturbing and inhaling the asbestos fibers.

"The government believes that people should be aware that some vermiculite attic insulation can contain microscopic asbestos fibers, and there are practical steps that homeowners can take to minimize exposure.

People who have homes with vermiculite attic insulation should become informed, not alarmed," said Stephen L. Johnson, EPA's Assistant Administrator for the Office of Prevention, Pesticides, and Toxic Substances. "By using the information in this campaign, people can determine if their home contains vermiculite attic insulation and learn how to properly manage it. Well informed consumers can reduce the possibility for exposure to asbestos from vermiculite attic insulation and minimize potential risks."

The key recommendations for homeowners to minimize exposure are:

- Homeowners should not disturb vermiculite attic insulation. Any disturbance has the potential to release asbestos fibers into the air.
- If homeowners must go into attic space with vermiculite insulation, they should make every effort to limit the number, duration, and activity level of those trips. Boxes or other items should not be stored in attics if retrieving them will disturb the insulation.
- Children should not be allowed to play in an attic with open areas of vermiculite insulation.
- Homeowners should never attempt to remove the vermiculite insulation. If removal is necessary, hire professionals trained and certified to safely remove the material.
- If you plan to remodel or conduct renovations that would disturb the vermiculite, hire professionals trained and certified to handle asbestos to safely remove the material.

Due to the scientific uncertainties associated with existing testing techniques, there is no easy way or dependable testing method to differentiate between vermiculite insulation that might have some asbestos fibers and vermiculite insulation that does not. Home testing vermiculite in attics is not currently practical. Therefore, it is best to assume that the material may contain asbestos and take the appropriate precautions. That is why EPA and ATSDR are today going forward with this consumer awareness campaign for homeowners that will allow them to identify the presence of vermiculite insulation in their attics, and if they have it, how best to reduce their potential exposure to the asbestos it may contain.

The campaign includes the nationwide distribution of a joint EPA and ATSDR pamphlet that outlines how to identify and manage vermiculite. The pamphlet will be disseminated to the national news media and through major hardware store chains, and through prominent display on EPA's website: <http://www.epa.gov/asbestos/>. Information is also available to consumers at a special hotline: **1-800-471-7127**.

In addition to the launch of today's campaign, the Agency is releasing three new documents on asbestos: a preliminary scientific study on six homes with vermiculite attic insulation, a study by Global Environment and Technology Foundation, and EPA's new Framework for the Asbestos Action Plan.

The first document provides a summary of results from a small scale study

of six homes with asbestos-contaminated vermiculite insulation where a number of common insulation-disturbance scenarios were examined. The results of this study highlight both the uncertainty relating to current testing methodologies and the potential that when vermiculite attic insulation is disturbed, fibers of asbestos in contaminated insulation can become airborne. However, if the vermiculite is left undisturbed and managed in place, risk of exposure is greatly reduced.

The second document is the release of a new report, "Asbestos Strategies," by the Global Environment and Technology Foundation, a non-profit organization located in Arlington, Va. This report, funded by an EPA grant, reflects the efforts of key experts and stakeholders convened to address a range of asbestos issues, and provides recommendations and options for asbestos policy oversight, outreach, and education. This report can be obtained at:
www.getf.org.

The third document is the "Framework for the Asbestos Action Plan," which outlines future research and risk reduction efforts that the Agency will undertake, including improving the state of science, and identifying and implementing ways to reduce risks from exposure to asbestos. These three documents will guide the Agency's future scientific and risk management strategies on asbestos.

Vermiculite is a granular product – absorbent and resistant to heat – that has been in commerce for almost 80 years. Much of the vermiculite used to make attic insulation originated from a mine in Libby, Montana, where there were natural veins of asbestos in the earth. That mine closed in 1990. Currently, vermiculite is mined at three U.S. facilities and in other countries which have lower levels of asbestos contamination in the finished material.

For additional information, visit: <http://www.epa.gov/asbestos/> or call 1-800-471-7127.

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Last Revised: 05/21/2003

ADMINISTRATIVE RECORD

**OPPT COMMENTS ON ACTION MEMORANDUM AMENDMENT
REMOVAL ACTION AT THE LIBBY ASBESTOS SITE**

(E-mailed to OPPT staff on 02-20-02)

February 22, 2002

CONFIDENTIAL**National Ramifications of Removal of Zonolite Attic Insulation (ZAI) from Homes in Libby**

The memorandum continually discusses the numerous pathways of exposure that result in the elevated risks to the residents of Libby (90% reported 2 or more exposure pathways and 40% reported 6 or more exposure pathways). These exposure pathways are always identified as being due to the exposure to amphibole asbestos. Were other non-amphibole exposure pathways factored in? Is the science strong enough to accurately predict when the input from a 2nd, 3rd, 4th, 5th, or 6th pathway presents a risk? The memorandum argues that one of the sources of exposure which leads to the increased risk to the residents of Libby is ZAI found in many of the homes in Libby. It is for this reason the memorandum states that EPA has determined that a Public Health Emergency exists in Libby (this determination has not been made at this time) and the removal of ZAI from the homes is warranted. However, of the estimated 1,000 homes in Libby that have ZAI, 20% will not have the ZAI insulation removed presumably because the insulation is the only potential exposure pathway and there is little risk when the insulation is not disturbed.

If the argument for removal of ZAI is that when coupled with additional exposure pathways it presents a greater risk warranting removal, the national ramifications are enormous. If we assume, for the sake of argument, that there are 10 million homeowners that have ZAI (actual numbers are unknown) and 10% (1 million) of those homeowners can demonstrate a second or third exposure pathway (occupational exposure and/or exposure from other sources in the home (floor/ceiling tile, boiler/pipe wrap, etc.)) aren't we now put in a position to remove their ZAI at a total national cost of over \$10 billion? If we are not, what is the reason we provide to these 1 million homeowners and to the media? To further confuse the issue with the public will be OPPT's Vermiculite Attic Insulation (VAI) study, due out later in the Spring, which will uphold EPA's long standing message that if the asbestos contaminated material in your home is not disturbed there is minimal risk. The data we have at this point do not appear to suggest that ZAI will contribute significantly to risk in a typical attic situation, certainly not sufficiently to trigger a "public health emergency". To make the claim in the memorandum that the homes in Libby are unique and require a higher level of maintenance leading to increased disturbances due to their "age and the harsh winter conditions" in the area is a shallow argument. There are older homes which exist in as harsh or harsher conditions across the country. Residents of Maine and Michigan might find this argument flawed. In addition, all residents across the country with ZAI "might use their attic frequently for unfinished storage, living, or work space, and also face frequent direct exposure". These potential exposure scenarios are not unique to Libby.

A strong case has not been made to demonstrate, either through the science or by physical characteristics, that Libby is unique and that the potential exposure pathway from ZAI will put the residents of Libby over the top in so far as risk and warrant a declaration of "public

health emergency".

Additional Comments

1. (Pg. 3 top) One way to justify the removal of ZAI in Libby is if it could be demonstrated that residents had put unexpanded vermiculite (non-commercial grade) into their homes because it was readily available around the mine/processing sites. This scenario is unique to Libby and possibly to the other areas of the country where processing of Libby vermiculite occurred. We need to identify other scenarios like this to form a local prudency judgment unique to Libby.
2. (Pg. 7 above #4) These disturbance scenarios are not unique to Libby. If our message of 20+ years (do not disturb it) is sent and adhered to, the risk is minimal.
3. (Pg. 14. C.) EPA has yet to make a formal determination that a Public Health Emergency exists in Libby. The fourth sentence: "ZAI makes an additional contribution..." is not entirely correct. The fact that it exists in one's attic does not make it an additional contributor to the cumulative asbestos exposure. It must be disturbed and the individual must have had exposure(s).
4. (Pg. 16 above #IV) Unskilled asbestos abatement, home repair, renovations, home fires, and demolition are not unique occurrences in Libby. All these events may and do occur in other parts of the country where more than one exposure pathway may already exist.
5. (Pg. 17. 2nd bullet) What would make it unnecessary to remove Zonolite attic insulation from walls and attics?
6. (Pg. 21) Why wasn't followup monitoring after removal included in the cost estimates for residences? How will we demonstrate that the removal was effective?

In conclusion, we do not think a supportable argument has been made to declare Libby a Public Health Emergency based on the questionable added exposure burdens from ZAI. Clearly Libby is unique in many respects due to the numerous exposure pathways from mining, processing, and outdoor use but the potential exposures from ZAI in Libby are no different from anywhere else in the country and as a result do not warrant removal.

EXHIBIT J



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Current Best Practices for Vermiculite Attic Insulation - May 2003

The U.S. Environmental Protection Agency (EPA) offices have received a large number of phone calls from citizens concerned about vermiculite insulation in their home that might be contaminated with asbestos. EPA is gathering more information about vermiculite insulation and other products containing vermiculite. If you suspect vermiculite insulation is in your home, the safest thing is to leave the material alone. If you decide to remove or must otherwise disturb the material due to a renovation project, consult with an experienced asbestos contractor. The following information provides a common-sense approach to help you find out what kind of insulation is in your home and decide what to do if you have vermiculite insulation.

What is vermiculite insulation?

Do I have vermiculite insulation?

Photo - Different Grades of Vermiculite

Photo - Close Up of Vermiculite Insulation in an Attic

Photo - Attic Containing Vermiculite Insulation

Is vermiculite insulation a problem?

How does asbestos cause health problems?

What should I do if I have vermiculite attic insulation?

What if I occasionally have to go into my attic?

What are the next steps?

Is my health at risk from previous exposures to the asbestos in the insulation?

What if I have work-related exposure to vermiculite?

Where can I get more information?

What is vermiculite insulation?

Vermiculite is a naturally occurring mineral that has the unusual property of expanding into worm-like accordion shaped pieces when heated. The expanded vermiculite is a light-weight, fire-resistant, absorbent, and odorless material. These properties allow vermiculite to be used to make numerous products, including attic insulation.

Do I have vermiculite insulation?

Vermiculite can be purchased in various forms for various uses. Sizes of vermiculite products range from very fine particles to large (coarse) pieces nearly an inch long. Vermiculite attic insulation is a pebble-like, pour-in product and is usually light-brown or gold in color. The pictures below show several samples of vermiculite attic insulation.

Photo - Different Grades of Vermiculite -

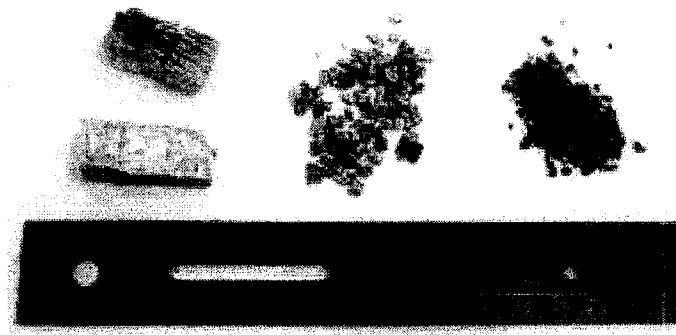


Photo - Close Up of Vermiculite Insulation in an Attic -

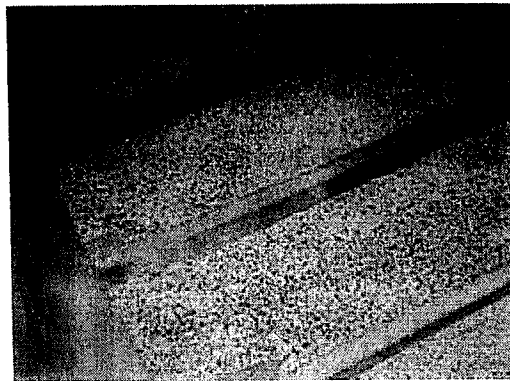
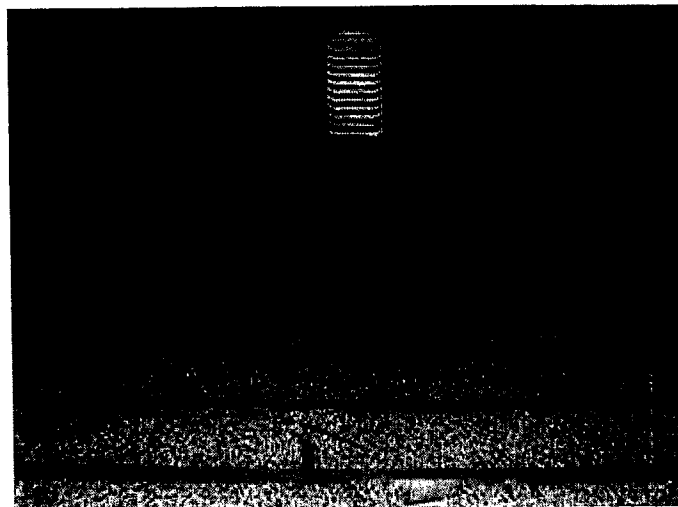


Photo - Attic Containing Vermiculite Insulation -



Is vermiculite insulation a problem?

Prior to its close in 1990, much of the world's supply of vermiculite came from a mine near Libby, Montana. This mine had a natural deposit of asbestos which resulted in the vermiculite being contaminated with asbestos. Attic insulation produced using vermiculite ore, particularly ore that originated from the Libby mine, may contain asbestos fibers. Today, vermiculite is mined at three U.S. facilities and in other countries which have low levels of contamination in the finished material.

How does asbestos cause health problems?

Asbestos can cause health problems when inhaled into the lungs. If products containing asbestos are disturbed, thin, lightweight asbestos fibers are released into the air. Persons breathing the air may breathe in asbestos fibers. Continued exposure increases the amount of fibers that remain in the lung. Fibers embedded in lung tissue over time may result in lung diseases such as asbestosis, lung cancer, or mesothelioma. Smoking increases your risk of developing illness from asbestos exposure.

What should I do if I have vermiculite attic insulation?

DO NOT DISTURB IT. Any disturbance has the potential to release asbestos fibers into the air. Limiting the number of trips you make to your attic and shortening the length of those trips can help limit your potential exposure. EPA and ATSDR strongly recommend that:

- Vermiculite insulation be left undisturbed in your attic. Due to the uncertainties with existing testing techniques, it is best to assume that the material may contain asbestos.
- You should not store boxes or other items in your attic if retrieving the material will disturb the insulation.
- Children should not be allowed to play in an attic with open areas of vermiculite insulation.
- If you plan to remodel or conduct renovations that would disturb the vermiculite, hire professionals trained and certified to handle asbestos to safely remove the material.
- You should never attempt to remove the insulation yourself. Hire professionals trained and certified to safely remove the material.

What if I occasionally have to go into my attic?

EPA and ATSDR strongly recommend that homeowners make every effort not to disturb vermiculite insulation in their attics. If you occasionally have to go into your attic, current best practices state you should:

1. Make every effort to stay on the floored part of your attic and to not disturb the insulation.
2. If you must perform activities that may disturb the attic insulation such as moving boxes (or other materials), do so as gently as possible to minimize the disturbance.
3. Leave the attic immediately after the disturbance.
4. If you need work done in your attic such as the installation of cable or utility lines, hire trained and certified professionals who can safely do the work.
5. It is possible that vermiculite attic insulation can sift through cracks in the ceiling, around light fixtures, or around ceiling fans. You can prevent this by sealing the cracks and holes that insulation could pass through.
6. Common dust masks are not effective against asbestos fibers. For information on the requirements for wearing a respirator

mask, visit the following OSHA website: <http://www.osha-slc.gov/SLTC/respiratoryprotection/index.html>

What are the next steps?

The guidance provided in this brochure reflects the current testing technology and knowledge of precautions one may take regarding vermiculite attic insulation. EPA is initiating further studies on vermiculite attic insulation and pursuing other asbestos related issues. Additional information will be provided to the public via the EPA and ATSDR web sites and through additional outreach materials as it becomes available.

Is my health at risk from previous exposures to the asbestos in the insulation?

If you removed or disturbed the insulation, it is possible that you inhaled some asbestos fibers. Also the disturbance may have resulted in the fibers being deposited into other areas of the home. Exposure to asbestos increases your risk of developing lung disease. That risk is made worse by smoking. In general, the greater the exposure to asbestos, the greater the chance of developing harmful health effects. Disease symptoms may take several years to develop following exposure. If you are concerned about possible exposure, consult a physician who specializes in lung diseases (pulmonologist). Where can I get information on testing or removal of the insulation? EPA and ATSDR strongly recommend using a trained and certified professional to conduct removal work. Removing the insulation yourself could potentially spread asbestos fibers throughout your home, putting you and your family at risk of inhaling these fibers. For certified asbestos removal professionals in your area, refer to your local Yellow Pages. Your State Environmental Agency can confirm that the company's credentials are current. You can find your State Agency at: <http://www.epa.gov/epahome/whereyoulive.htm>. Currently, there are specific technical issues involving vermiculite sampling that can complicate testing for the presence of asbestos fibers and interpreting the risk from exposure. EPA and ATSDR are not recommending at this time that homeowners have vermiculite attic insulation tested for asbestos. As testing techniques are refined, EPA and ATSDR will provide information to the public on the benefits of testing that produce more definitive and accurate test results.

What if I have work-related exposure to vermiculite?

Workers who have had significant past exposure, or have significant ongoing exposure to asbestos, to vermiculite from Libby, or to other asbestos contaminated materials should consider getting a medical exam from a physician who knows about diseases caused by asbestos. For more information and to obtain a fact sheet concerning occupational exposure to vermiculite, contact the National Institute for Occupational Safety and Health (NIOSH) at: 1-800-35-NIOSH, or <http://www.cdc.gov/niosh/homepage.html>.

Where can I get more information?

Information on the Agency's guidance on asbestos and vermiculite, including insulation and horticultural products, has previously been available on EPA's website. Additional information on vermiculite and asbestos is available from the

following sources:

General Information	EPA's Toxic Substances Control Act (TSCA) Assistance Information Service: Asbestos Line: 1-800-471-7127 EPA Asbestos Ombudsman: 1-800-368-5888 EPA's Asbestos Home Page: http://www.epa.gov/asbestos/
Health Information	Agency for Toxic Substances and Disease Registry (ATSDR): http://www.atsdr.cdc.gov
Worker Safety	Occupational Safety and Health Administration (OSHA:) http://www.osha.gov National Institute for Occupational Safety and Health (NIOSH): http://www.cdc.gov/niosh/homepage.html
Consumer Products	Consumer Product Safety Commission (CPSC): http://www.cpsc.gov
Mineralogy	United States Geological Survey (USGS): http://minerals.usgs.gov/minerals/

Prepared by the United States Environmental Protection Agency, National Institute for Occupational Safety and the Agency for Toxic Substances and Disease Registry, May 2003. EPA publication 747-F-03-001

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Last updated on Wednesday, May 21st, 2003
URL: <http://www.epa.gov/asbestos/insulation.html>

EXHIBIT K

**UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON D.C. 20460**

APR 4 2003

THE ADMINISTRATOR

The Honorable Max Baucus
United States Senate
Washington, DC 20510

Dear Senator Baucus:

Thank you for your letter of February 3, 2003, regarding the Environmental Protection Agency's (EPA) asbestos cleanup in Libby, Montana. I share your concern for the health of Libby residents, and continue to support the cleanup of the Libby site as a top priority.

I appreciate the opportunity to explain EPA's actions with respect to the question of whether to declare a public health emergency in Libby. Many press accounts have mischaracterized EPA's position on this matter, as well as EPA's handling of broader public outreach on vermiculite attic insulation.

The Comprehensive Emergency Response, Compensation and Liability Act (CERCLA) generally prohibits the removal of "product" from a residential structure as part of a removal action, but provides an exception where a health emergency exists. As we have previously discussed, EPA chose not to rely upon CERCLA's health emergency provision, in part, to minimize the possibility of removal work in Libby being delayed by possible legal challenges to this untested approach. Instead, EPA determined that it has the authority to remove the insulation in Libby based upon more traditional legal authorities because many of the homes contained insulation that was not inspected, packaged, labeled, warranted, regulated, or sold as a commercial "product".

The Agency's decision not to invoke CERCLA's health emergency provision to remove attic insulation in Libby has no relationship to how EPA communicates potential exposure risk of asbestos contaminated vermiculite attic insulation to the wider American public. EPA has not changed its long standing guidance to homeowners because we do not have the scientific basis to do so at this time. Until more is known, the best way to safely manage vermiculite attic insulation is to leave it undisturbed or, if necessary, retain the assistance of a professional for removal. To improve communication of EPA's guidance to a broader audience, EPA will make available to the public a consumer pamphlet that will provide the Agency's current guidance on how to address vermiculite attic insulation if it is found in the home. Because so much about the risks posed from asbestos-containing vermiculite attic insulation remains unknown, EPA will step up its efforts to research and investigate the potential health effects of asbestos-containing vermiculite products, including a multi-phase study to further evaluate the potential exposure risk from vermiculite attic insulation, so that we can provide more guidance to the public in the future.

Again, thank you for your letter. Please find enclosed detailed responses to your other questions. I appreciate your continued support for the cleanup activities in Libby. If you have any further questions regarding the cleanup or the Agency's activities to evaluate asbestos-contaminated vermiculite, please contact me, or your staff may contact Betsy Henry in the Office of Congressional and Intergovernmental Relations at (202) 564-7222.

Sincerely yours,

Christine Todd Whitman

Enclosure

Response to Questions of the Honorable Max Baucus
Prepared by the EPA Office of Solid Waste and Emergency Response and the Office of
Prevention, Pesticides and Toxic Substances

1. **Please discuss in detail the Administrator's decision to grant authority to EPA to remove contamination from homes in Libby.**

Response:

The Comprehensive Emergency Response, Compensation and Liability Act (CERCLA) §104(a)(3)(B) expressly limits EPA's authority to address a release "from products which are part of the structure of, and result in exposure within, residential buildings or business or community structures, .". Sec 104(a)(4), however, provides an exception if the Administrator finds the release or threatened release constitutes a public health or environmental emergency. The EPA considered invoking this provision based upon the assumption the attic insulation in Libby homes was a product. This provision has not been invoked in the 23 year history of the Act.

EPA determined that it has the authority to remove the insulation in Libby without relying upon this exception because the insulation, in the unique circumstances of Libby, is not a "product." This rationale was laid out in the May 9, 2002, Action Memorandum Amendment:

This action is based upon the unique circumstances in Libby, which include not only the level of cumulative exposure and multiple pathways, but also the highly unusual facts indicating that homes in Libby contain insulation that consists of the asbestos-containing vermiculite mined at Libby that was not inspected, packaged, labeled, warranted, regulated or sold as a commercial product.

EPA chose not to rely upon CERCLA's health emergency provision, in part, to minimize the possibility of removal work being delayed by possible legal challenges to the untested approach, and instead relied upon more traditional legal authorities.

2. **Please also discuss the unique elements of the situation in Libby, and how these unique elements impacted your decision to allow the cleanup action. Please indicate how the presence of tremolite asbestos and/or "Libby fiber" is a factor in the unique situation in Libby, Montana.**

Response:

EPA funded ATSDR to review the health statistics for Libby residents. This review found that the rate of asbestos-related mortality in the community is 40 times higher than the average in Montana and 80 times higher than the national average. ATSDR also conducted an evaluation of the health of Libby residents providing chest X-rays, breathing tests, and interviews to characterize the potential exposures and health of the population. The ATSDR study concluded that a substantial segment of the population has asbestos-related scarring, lung abnormalities or impaired breathing. Five percent of these impacted residents could identify no potential route of exposure, other than having lived in the Libby Valley.

In addition to these health impacts, Libby differs from other sites with amphibole asbestos contamination for other reasons. The Libby mine was the first and, for many years, the world's largest producer of vermiculite ore. EPA estimates that vermiculite production may have exceeded 6 million tons during the years that WR. Grace owned the mine. This ore was milled and processed in Libby, which means much of the asbestos was removed from the product, and stayed in Libby. This waste found its way into homes, school yards, gardens, road beds and many other places in the community, where people continued to be exposed for decades.

As a point of clarification, contrary to recent press reports, EPA has gathered a large